Antibio Advisor

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Antibiotic overuse breeds treatment resistance

A tool to address this.

An intelligent interface project targeted towards educating people of different ages about when and why to use antibiotic medication.

This will be done by educating users through the use of a simple to use chat-bot which will answer varied questions relating to antibiotics and its use.

Problem Definition

According to the **World Health Organisation** [1]: "Antimicrobials - including antibiotics, antivirals, antifungals and antiparasitics - are medicines used to prevent and treat infections in humans, animals and plants."
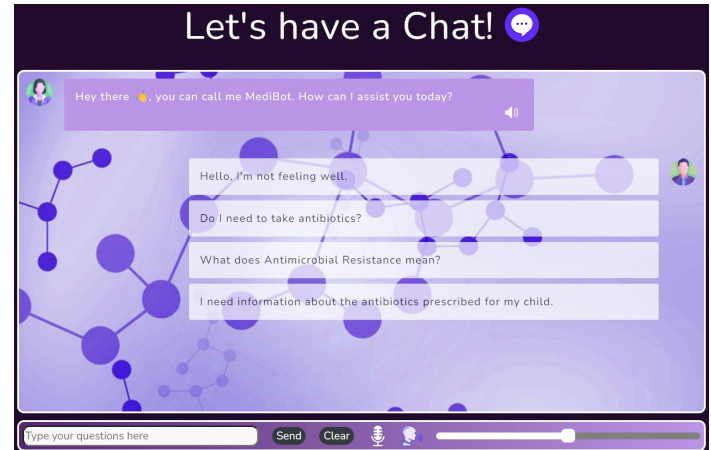
Excessive antibiotic use leads to heightened drug resistance, impacting treatment efficacy and complicating infection management, posing severe health risks.

Antimicrobial Resistance (AMR) generates drug-resistant organisms globally, limiting treatment options, inflating healthcare costs, and elevating risks during medical procedures, necessitating urgent prevention and treatment strategies.

Proposed Solution

Antibio Advisor, a web app tailored for individuals 18 or older but available for all. Our web app offers an array of vital features: an intelligent chatbot for medical guidance, an interactive map to locate pharmacies and general practitioners, and a comprehensive term guide.

Prioritising user awareness, our platform provides essential information in the form of a FAQs page, an informative Quiz and a prescription info page.
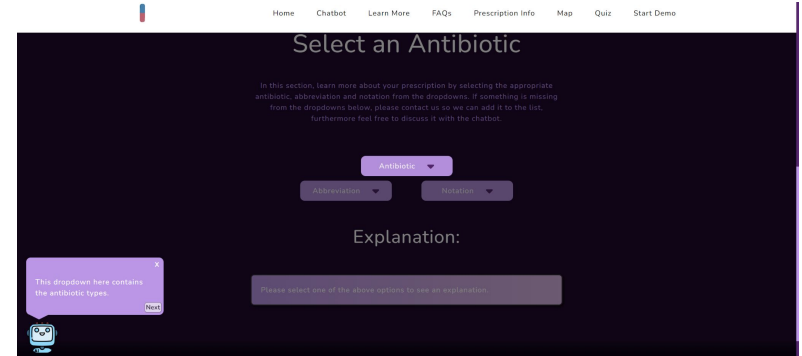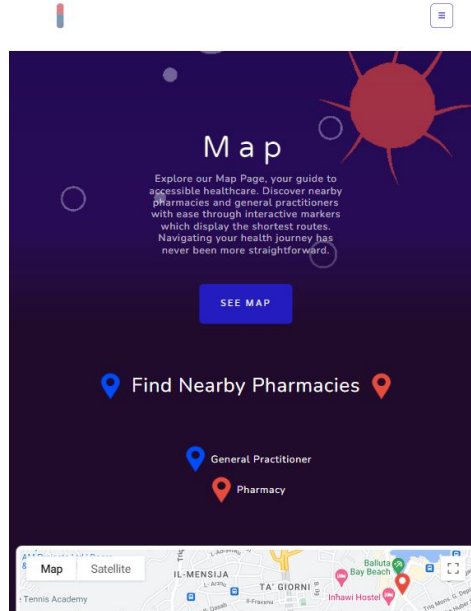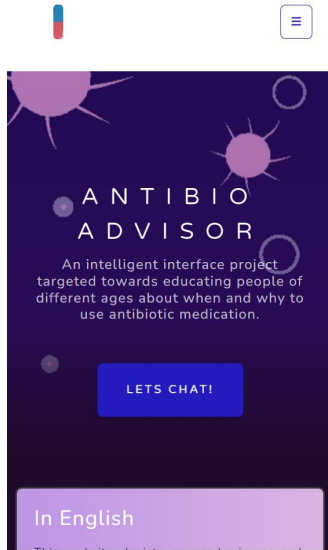
A Multi-Feature Toolkit

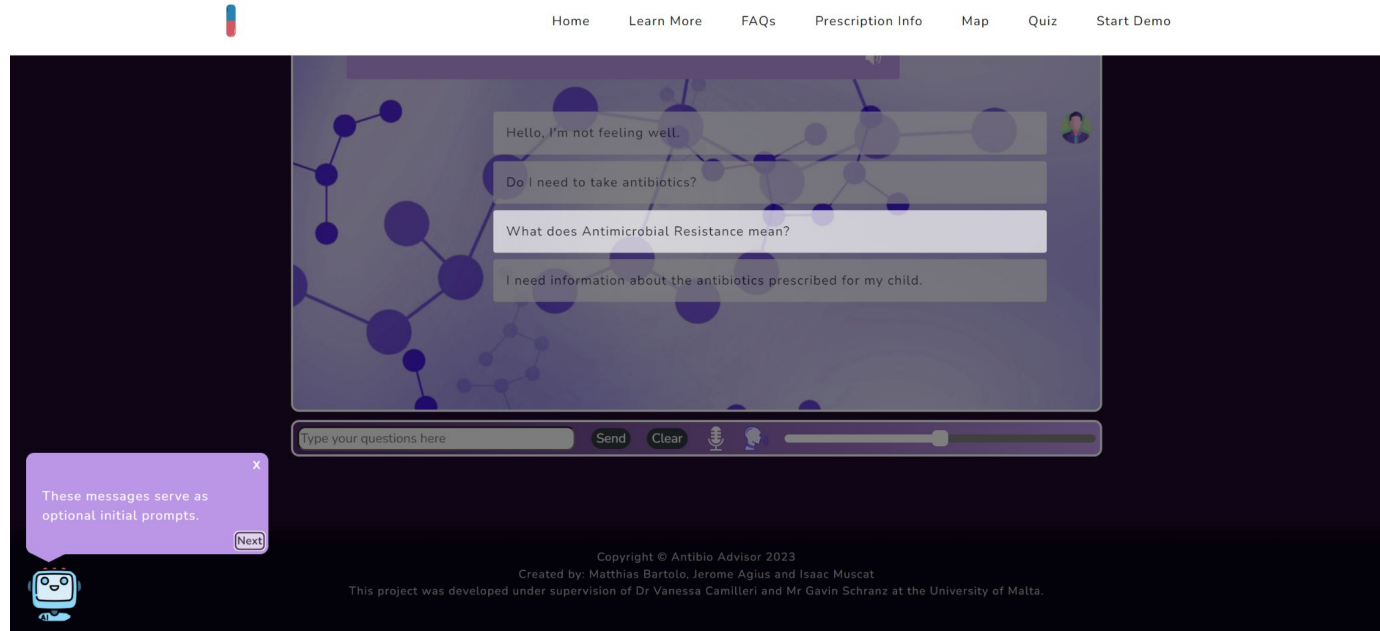Home   Learn More   FAQs   Prescription Info   Map   Quiz   Start Demo

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LETS CHAT!

In English

Map

Explore our Map Page, your guide to accessible healthcare. Discover nearby pharmacies and general practitioners with ease through interactive markers which display the shortest routes. Navigating your health journey has never been more straightforward.

SEE MAP

Find Nearby Pharmacies

General Practitioner

Pharmacy

Home   Chatbot   Learn More   FAQs   Prescription Info   Map   Quiz   Start Demo

Select an Antibiotic

In this section, learn more about your prescription by selecting the appropriate antibiotic, abbreviation and notation from the dropdowns. If something is missing from the dropdowns below, please contact us so we can add it to the list. furthermore feel free to discuss it with the chatbot.

Antibiotic ▼

Abbreviation ▼   Notation ▼

Explanation:

This dropdown here contains the antibiotic types.   Next

Please select one of the above options to see an explanation.

Interactable Design

Chatbot Functionality

Optimised Design

Are you sure you want to clear the conversation?

Yes   No

Are you sure you want to clear the conversation?

Yes   No
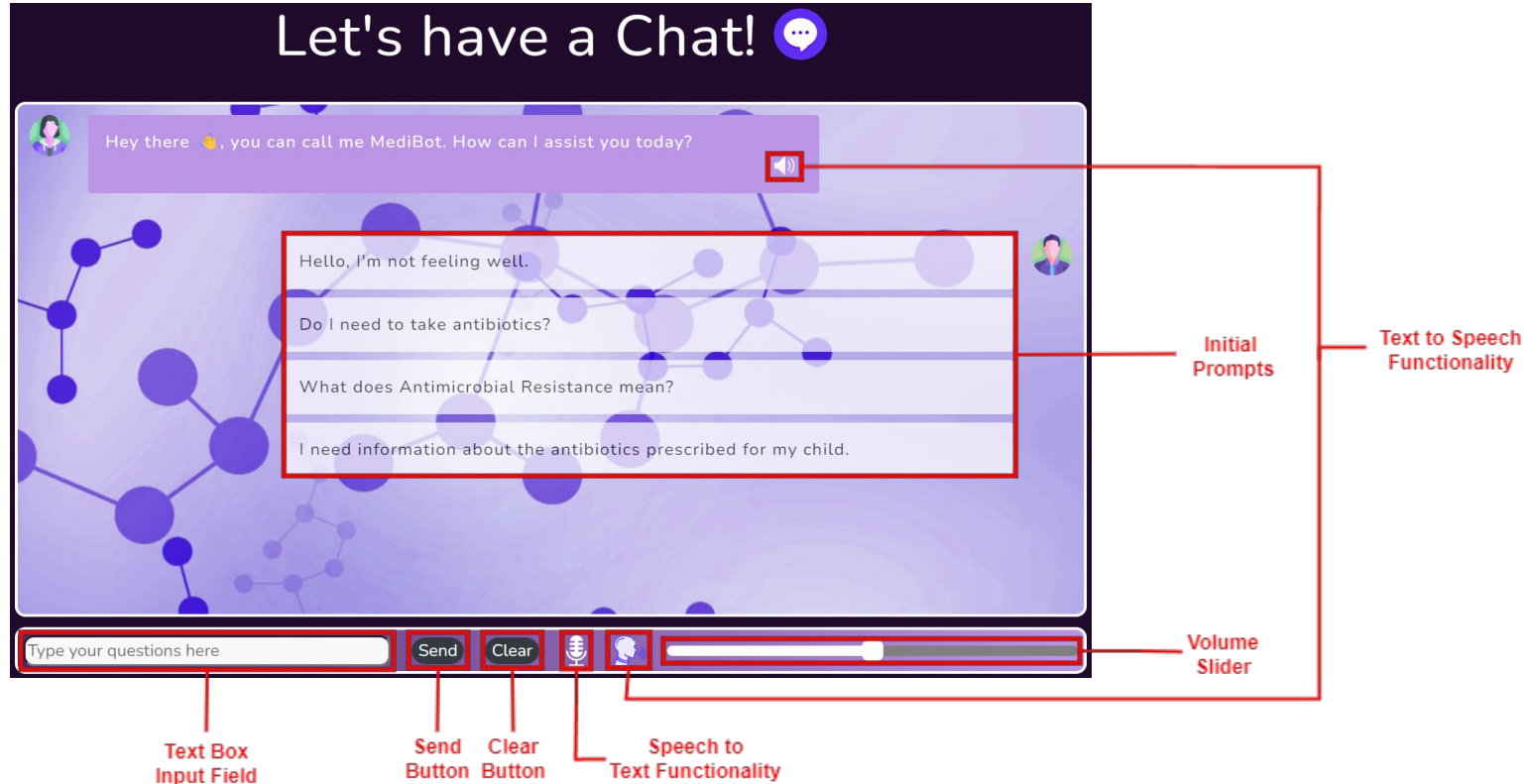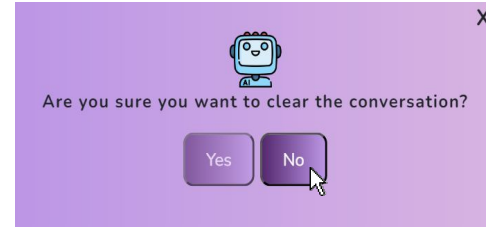
Navigation made Simple with our Interactive Map

Personalised FAQs

Decipher your Prescription

Select an Antibiotic

In this section, learn more about your prescription by selecting the appropriate antibiotic, abbreviation and notation from the dropdowns. If something is missing from the dropdowns below, please contact us so we can add it to the list, furthermore feel free to discuss it with the chatbot.

Antibiotic ▼

Abbreviation ▼   Notation ▼

Explanation:

Penicillin is one of the first antibiotics discovered by Alexander Fleming in 1928. It's effective against a wide range of bacteria and has been used to treat various infections, including strep throat and syphilis.

PRN: Abbreviation for 'pro re nata', or 'as needed'.

1-0-1: One pill in the morning, skip midday, and one pill in the evening.

Antibiotic ▼
--
Penicillin
Cephalosporins

Abbreviation ▼
--
HS
PRN

Notation ▼
--
0-1-0
1-0-1

Test your Antibiotic Knowledge

The **Quiz** page, offers insights into antibiotics and antimicrobial resistance.

Four **randomly** selected questions retrieved from a json file are presented to the user. The answers are randomly **shuffled** to increase test variety and gauge user knowledge and expertise, whilst advocating for responsible healthcare practices.

Users are also given the ability to **generate** new questions.

Question 1 - Can antibiotics be used to treat fungal or yeast infections?

A: Using antibiotics for fungal infections is recommended

B: Antibiotics can cure fungal infections faster

C: Antibiotics are effective against fungi, Antibiotics treat both bacteria and fungi

D: Antibiotics work best for yeast infections

E: No, antibiotics target bacteria, not fungi

✅ Correct!

Question 2 - What's the most common side effect of antibiotics?

A: Upset stomach and diarrhea

B: Stronger bones and healthier hair

C: Improved digestion, Stronger immune system

D: Enhanced taste and smell

E: Clear skin and increased energy

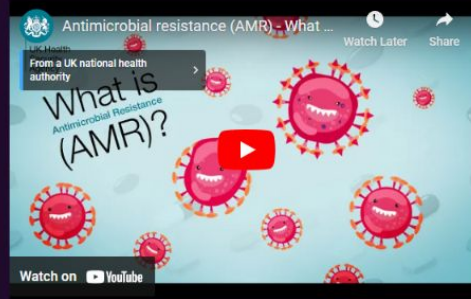❌ Incorrect! The Correct answer was: Upset stomach and diarrhea

Submit   Regenerate Questions

Enhance your Knowledge with Personalised Quiz Feedback

Comprehensive Understanding

1

You got 4/4 points.

OK

Solid Grasp with Room to Grow

2

You got 1/4 points.

OK

Opportunity for Improvement

3

You got 0/4 points.
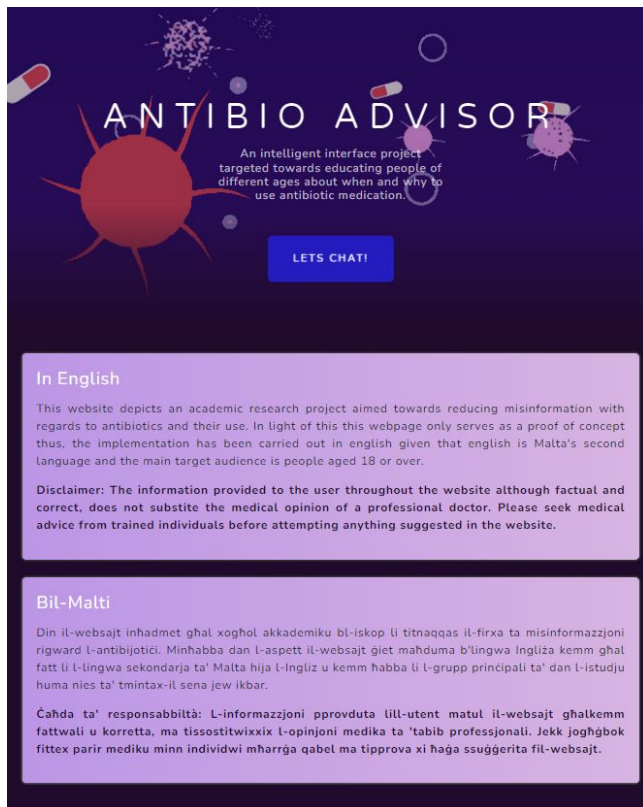
OK

Interested to Learn More

Ethical Concerns

The website prominently showcases a **disclaimer** on its initial page.

Prior to utilising **location** and **speech** features, the platform seeks user consent.

No user **personal data** is saved or kept, ensuring that no chatbot history or personal information is stored on the platform or any cloud storage system.
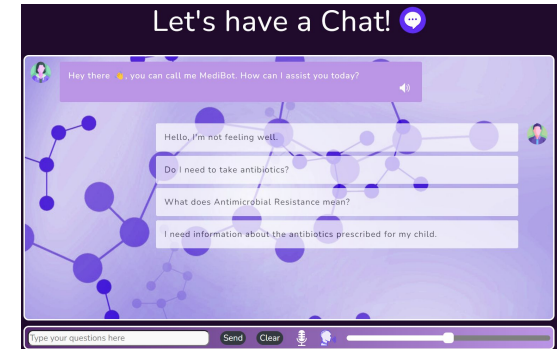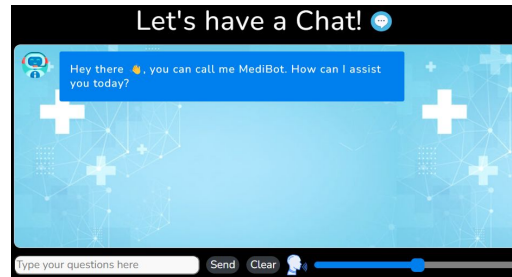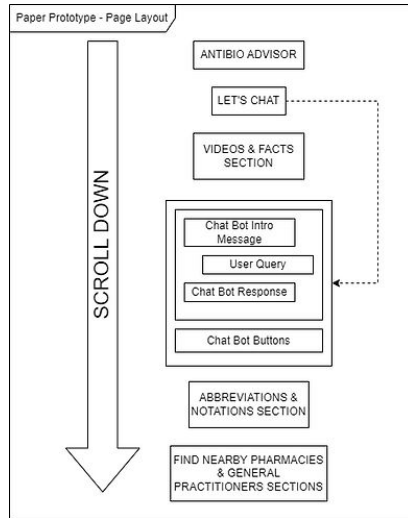
A Good Design takes a lot of Effort, Feedback and Time

Paper Prototype → Computer Prototype → Final Design

Elevating user experience

Ways to improve the website's shallow parts.

1. Automatic Language Translation

2. Automatic Antibiotic Detection (Prescription Info Page)

3. AI Generated Questions/Answers (Quiz Page)

Video Demonstration

References

[1] World Health Organization, "Antimicrobial resistance," [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance. [Accessed: Oct. 2, 2023].

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Thank you!

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